

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 1-45 are pending in this case. Claims 1, 4, 5, 15, 18-22, 29, 34-36, 44, and 45 are amended, and the amendments are supported in the originally-filed disclosure at least at Fig. 1 and paragraph [0044] of the published specification or the amendments correct matters of form. Thus, no new matter is added.

In the outstanding Office Action, Claims 4 and 5 were rejected under 35 U.S.C. §112, second paragraph; Claims 1-12, 14-26, 28-40, and 42-45 were rejected under 35 U.S.C. §103(a) as unpatentable over Jacobson, et al. (U.S. Patent No. 5,924,686, herein “Jacobson”), in view of Sashida (U.S. Patent No. 6,788,440 B1); and Claims 13, 27, and 41 were rejected under 35 U.S.C. §103(a) as unpatentable over Jacobson, in view of Sashida, further in view of Hamamoto, et al. (U.S. Patent No. 6,421,581 B1, herein “Hamamoto”).

Claims 4 and 5 are amended to address the antecedent basis issues. Thus, Applicants respectfully request that the rejection of Claims 4 and 5 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Applicants respectfully traverse the rejections under 35 U.S.C. § 103(a).

Claim 1 is directed to a sheet feeding device and includes “at least two detecting devices configured to detect a leading edge of **the first sheet** before the first sheet reaches the pull-out rollers...wherein the control device is configured to **change a rotational speed of at least one of the sheet pick-up device and the rotary member based on a detection result** of the at least two detecting devices and a drive amount of the drive device.”

The outstanding Office Action cites the sensors S1 and S2 of Sashida as teaching the “at least two detecting devices” as defined by Claim 1 and cites the microprocessor 49 of Jacobson, which changes the rate of speed of the motor 38 of the separating and staging

feeder 32, as the control device as defined by Claim 1. At page 3 of the outstanding Office Action, a modification of Jacobson with the sensors S1 and S2 of Sashida is proposed “for the purposes of duplicating an image, separating and conveying an original or only the uppermost one of a plurality of originals, detecting leading edges before separating and leading edges after separating.”

In Sashida, as depicted at Fig. 4 and described at column 8, line 66, to column 9, line 32, detection of the leading end of the original by sensor S1 drives the stepping motor 227 to increase the distance between the feed roller 221 and separating roller 261. The detection of the leading end of the original by sensor S2 stops the stepping motor 227 to maintain the distance between the feed roller 221 and separating roller 261, and detection of the trailing end of the original reverses the drive direction of the stepping motor 227 to narrow the distance between the feed roller 221 and separating roller 261.

In Jacobson, as depicted at Figures 1 and 2 and described at column 7, line 24, to column 8, line 22, the sheet feeding process is described beginning at the stage when “all necessary set up steps to initially stage a top sheet 40 in the feeding device 30...have been taken to place a top sheet 40 in the staged position with the leading edge thereof in the grasp of the rollers 46.” These rollers 46 are analogous to the feed roller and separating roller 221 and 261 of Sashida. Jacobson also describes the microprocessor 49 controlling the motor 38 of the separating and staging feeder 32 to operate at a first predetermined rate of speed after the feeder 44 has fully withdrawn the top sheet 40 from the hopper 42 and to either deactivate or increase the rate of speed of the motor 38 based on the output of the sensor 50.

The modification proposed by the outstanding Office Action appears to be to add a second sensor, analogous to either sensor S1 or sensor S2 of Sashida, on the other side of the rollers 46 from sensor 50 in Jacobson.

However, the sensors S1 and S2 of Sashida affect the distance between the feed roller 221 and separating roller 261, which are analogous to rollers 46 of Jacobson. Neither the first sensor S1 nor the second sensor S2 of Sashida affects the speed of the feeder, analogous to the feeder 44 of Jacobson which is controlled by the microprocessor 49, as described above. Thus, a modification of Jacobson to add a second sensor, either S1 or S2 of Sashida, would still not teach or suggest “at least two detecting devices...wherein the control device is **configured to change a rotational speed...based on a detection result of the at least two detecting devices,**” as recited in Claim 1.

Adding a sensor, either S1 or S2, of Sashida to Jacobson but asserting that it functions like a second sensor as recited in Claim 1 rather than as a sensor as described in Sashida represents impermissible hindsight and, according to MPEP § 2142, does not establish a *prima facie* case of obviousness.

Because Jacobson and Sashida, taken in combination, do not teach or suggest all the elements of Claim 1, Applicants respectfully request that the rejection of Claim 1 under 35 U.S.C. § 103(a) be withdrawn.

Claims 2-28 depend from Claim 1 and, therefore, patentably define over the combination of Jacobson and Sashida for at least the same reasons as Claim 1. Further, Hamamoto, which is additionally cited against Claim 13, does not cure the deficiencies of Jacobson and Sashida and, further, is not cited for the features of Claim 1 deficient in the combination of Jacobson and Sashida. Thus, Applicants respectfully request that the rejections under 35 U.S.C. § 103(a) of Claims 2-28 be withdrawn.

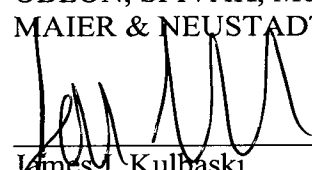
Claims 15, 29, and 43-45, though differing in scope and statutory subject matter from Claim 1, patentably define over the combination of Jacobson and Sashida and Hamamoto for substantially the same reasons as Claim 1. Thus, Applicants respectfully request that the

rejections under 35 U.S.C. § 103(a) of Claim 15, Claims 16-28, which depend therefrom,
Claim 29, Claims 30-42, which depend therefrom, and Claims 43-45 be withdrawn.

Consequently, in light of the above discussion and in view of the present amendment,
the present application is believed to be in condition for allowance. An early and favorable
action to that effect is respectfully requested.

Respectfully submitted,

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